Chapter 7
Prepare to Install the Routing Node

After you have prepared your installation site as described in "Prepare the Site" on page 49, you are ready to unpack and install the routing node. It is important to proceed through the installation process in the following order:

1. Review the safety guidelines as explained in "Regulatory Compliance and Safety Information" on page 65.

2. Follow the instructions in this chapter to unpack the routing node and verify the parts received.

3. Install the routing node as described in "Install the Routing Node" on page 105.

4. Perform the initial system startup as described in "Power Up the Router and Configure the Software" on page 137.

This chapter describes how to prepare to install the routing node. It discusses the following topics:

Tools and Parts Required on page 99

General Safety Warnings and Guidelines on page 100

Prevent Electrostatic Damage on page 100

Rack-Mounting Brackets on page 101

Unpack the Routing Node on page 101

Verify Parts Received on page 103

Tools and Parts Required

To unpack the routing node and prepare for installation, you need the following tools:

Phillips (+) screwdriver, number 2

1/2-in. or 13-mm open-end or socket wrench to remove bracket bolts from the shipping pallet

Blank panels to cover any slots not occupied by a component

General Safety Warnings and Guidelines

To safely install the routing node, it is important to understand the safety warnings and follow proper safety guidelines. This section presents general safety information related to installing the routing node. For a complete list of safety warnings and guidelines for the routing node, see "Regulatory Compliance and Safety Information" on page 65.

Prevent Electrostatic Damage

Many router hardware components are sensitive to damage from electricity. Some components can be impaired by voltages as low as 30 V. You can easily generate potentially damaging static voltages whenever you handle plastic or foam packing material or if you move components across plastic or carpets. Always take electrostatic discharge (ESD) precautions to prevent intermittent or complete component failures.

To minimize the potential for ESD damage, observe the following guidelines:

Always use an ESD wrist strap or ankle strap, and make sure that it is in direct contact with your skin.
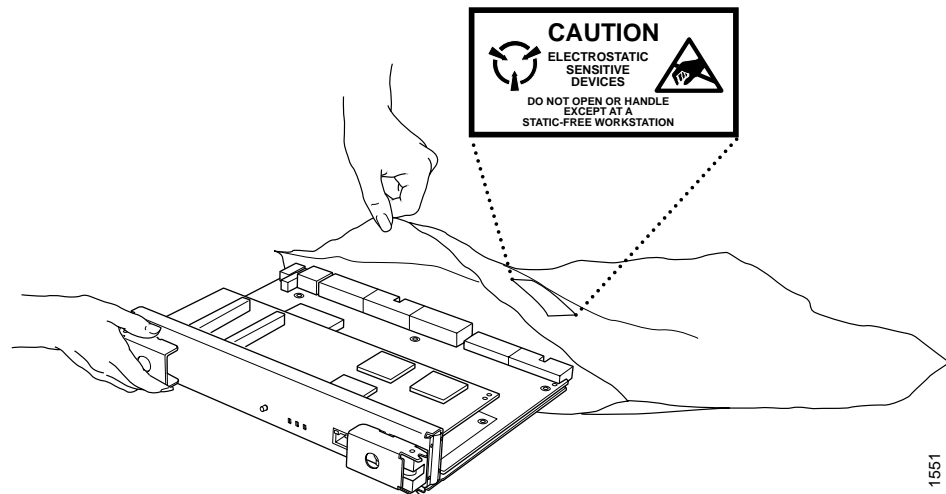
> ⚠️ **Caution** For safety, periodically check the resistance value of the antistatic strap. The measurement should be in the range of 1- to-10 Mohms.

When handling a removed FPC, PIC, or other component, make sure the equipment end of your ESD strap is attached to one of the two ESD points on the routing node chassis (see Figure 1 on page 9 and Figure 2 on page 10).

Avoid contact between the component and your clothing. ESD voltages emitted from clothing can damage components.

When removing or installing a board, always place it component-side up on an antistatic surface, in an antistatic card rack, or in an electrostatic bag (see Figure 27). If you are returning the board to Juniper Networks, immediately store it in an electrostatic bag.

Figure 27: Place Component into an Electrostatic Bag

Rack-Mounting Brackets

There are two types of rack-mounting brackets for the routing node. Figure 1 on page 9 shows both sets of mounting ears:

Front rack-mounting ears—The routing node has two front rack-mounting ears, mounted at the front of each side of the chassis. The ears have holes for mounting screws, spaced at 5.25 in. (13.35 cm).

Center rack-mounting ears—The routing node has two center rack-mounting ears, mounted along the middle of each side of the chassis. The ears have holes for mounting screws, spaced at 5.25 in. (13.35 cm).

Unpack the Routing Node

The routing node is shipped in a wooden crate. A wooden pallet forms the bottom of the crate. The routing node chassis is bolted to this pallet. An installation quick start poster and a cardboard accessory box are also included in the shipping crate.
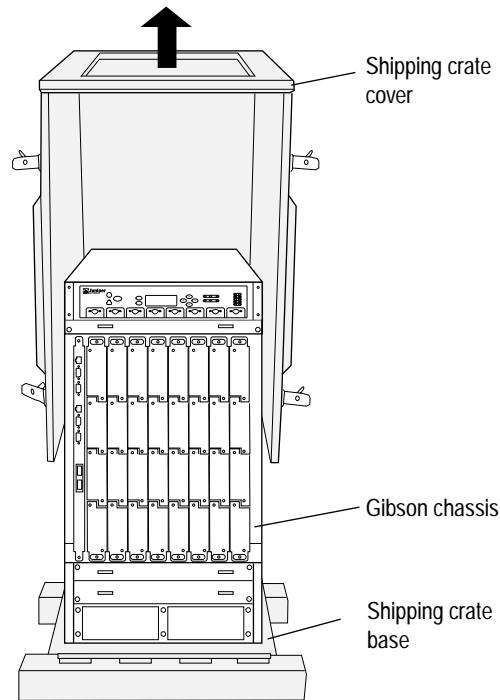
> **Note** Because the routing node is protected inside its shipping crate, we recommend that you not unpack it until you are ready to install it.

To unpack the routing node, follow these steps (see Figure 28):

1. Move the shipping crate to a staging area as close to the installation site as possible, where you have enough room to remove the components from the chassis. While the chassis is bolted to the pallet, you can use a forklift to move it.

2. Position the shipping crate with the arrows pointing up.

3. Open the front flaps on the shipping crate.

4. Lift the shipping crate off the pallet.

5. Remove the foam covering the top of the routing node.

6. Remove the accessory box, the installation handle, and the installation poster.

7. Verify the parts received against the list in Table 20 and Table 21 on page 104.

8. Remove the vapor corrosion inhibitor (VCI) packs attached to the pallet, being careful not to break the VCI packs open.

9. To remove the chassis from the pallet, use a 1/2-in. socket wrench to remove the bolts from the brackets holding the chassis on the pallet.

10. Store the brackets and bolts inside the accessory box.

11. Save the shipping crate, pallet, and packing materials in case you need to move or ship the routing node at a later time.

12. To proceed with the installation, see "Install the Routing Node" on page 105.

Figure 28: Contents of the Shipping Crate

Shipping crate cover

Gibson chassis

Shipping crate base

1585

Verify Parts Received

A packing list is included in each shipment. Check the parts in the shipment against the items on the packing list. The packing list specifies the part numbers and descriptions of each part in your order.

If any part is missing, contact a customer service representative.

The main shipment contains the routing node chassis with installed components, as listed in Table 20, and an accessory box, which contains the parts listed in Table 21.

Table 20: Routing Node Parts List

Component	Quantity
Chassis, including midplane, craft interface, and rack-mounting ears	1
FPCs	Up to 8
PICs	Up to 4 per FPC
SIBs	5
Routing Engines	1 or 2
CBs	1 or 2
SCGs	1 or 2
Power supplies	2
CIP	1
Front fan trays	2
Rear fan tray	1
Quick start installation poster	1
Front mounting shelf	1
Rear mounting shelf	1
Spacer bars	2
Blank panels for slots without components installed	One blank panel for each slot not occupied by a component

Table 21: Accessory Box Parts List

Part	Quantity
Mounting screws	Bag of 14
ESD wrist strap with cable	1
PCMCIA card containing backup copy of JUNOS Internet software	1
Software license agreement	1
Serial cable, 6-ft length, to connect Routing Engine to management console	1
Ethernet cable, 15-ft length, to connect Routing Engine to management device	1
Power cable lugs	8
Connectors for alarm relay cables	2